

Memorandum

Subject: Lincoln Federal Transit Apportionment

From: Brian McCollom

To: Kent Morgan, City of Lincoln Planning Department
Joe Kern, SRF

Date: November 17, 2003

Patte Newman raised a question in our meeting with her and Terry Werner about the impact that restructuring StarTran's bus service would have on its federal transit funding. I tried to respond to her question in this memorandum.

The Federal Formula

The federal transit funding is allocated to urbanized areas like Lincoln based on the following variables:

- Urbanized area population
- Urbanized area population density
- Revenue miles of service provided
- Passenger miles traveled
- Operating Cost

Lincoln Federal Allocation				
Fiscal Year 2003				
Allocation Formula	Mode	Unit Value	Funding	Percent of Total Funding
Population		\$2.64590624	\$599,515	25.5%
Population * Density		\$0.00115768	\$760,960	32.3%
Revenue Vehicle Mile	MB	\$0.54899841	\$769,017	32.6%
Revenue Vehicle Mile	DR	\$0.54899841	\$169,348	7.2%
(PM * PM)/Op Cost	MB/DR	\$0.00586778	\$56,806	2.4%
Total			\$2,355,646	100.0%
<i>PM = Passenger Miles</i>				

In 2003, almost 58 percent of the funding received by Lincoln was based on population and population density. The funding is "fixed" and does not depend on the amount of service operated by Lincoln.

Almost 40 percent of the funding received by Lincoln was based on revenue miles of service provided. The factor revenue miles is the major portion of the “variable” funding. It is variable because it depends on the amount of service operated by StarTran.

The remaining 2.4 percent of funding is based on two factors — passenger miles and operating cost. Passenger miles are the sum of the distance traveled by Lincoln transit users. This also is variable and would increase as service increases.

Funding Impact of Adding Service

Patte Newman raised a question about the impact that restructuring StarTran’s bus service would have on its federal transit funding. This restructuring could involve two actions:

- Reallocating the current service to be more productive in terms of passengers with no change in budget or total revenue miles of service operated, or
- Adding new service that would require a larger budget and more revenue miles to be operated.

The impact of reallocating the current service would have a small impact on federal funding. The only factor that would be impacted would be passenger miles since there would be no change in budget (operating cost) or revenue miles.

This table shows the increase in federal funding that would result for moderate to high increases in passengers carried ranging from 5 to 20 percent. These projections assume that the new passengers would travel the same distances as current users. The increases in funding for these scenarios range from 0.2 percent to 1.1 percent for passenger increases ranging from 5 to 20 percent.

Impact of Passenger Increases on Federal Funding		
Service Reallocation: No Change in Total Service		
Fiscal Year 2003		
Percent Passenger Increase	Increase in Federal Funding	Percent Increase in Federal Funding
0%	\$0	0.0%
5%	\$5,823	0.2%
10%	\$11,929	0.5%
15%	\$18,320	0.8%
20%	\$24,995	1.1%

The impact of adding service also would have a small impact on federal funding, both in the short and long run. In the short run, the added miles of service and passengers carried would not increase immediately the amount of federal funding. This is because the federal funding formula uses operating statistics that lag the funding year by two years. For example, the funding received by Lincoln in fiscal year 2003 is based on its operating statistics from fiscal year 2001. Therefore, the “payback” in federal funding for increased service occurs two years after the new service is added.

In the long run, the increased federal funding only pays for a small portion of the added cost of the new service. It is estimated that the increased federal funding would cover only \$0.58 or 14.7 percent of the StarTran’s total operating cost per mile. If it is assumed that the new bus service that attracts ridership at about the current system productivity, passenger revenues would cover another 17 percent of the cost, leaving an operating deficit to be funded by the City of \$2.68 per revenue mile.

Impact of Service Increases on Federal Funding		
Per Unit Revenue Mile of Service		
Fiscal Year 2003		
StarTran 2001 Cost per Revenue Mile (Bus)		\$3.93
Federal Increase in Funding per Revenue Mile		
Revenue Vehicle Mile	\$0.55	
(PM * PM) / Operating Cost	\$0.03	
		\$0.58
Passenger Revenues @ 17% of Operating Cost		\$0.67
Net StarTran Cost		\$2.68